



# Powell Creek Solar

Amendment Exhibit H

Landscape Mitigation Plan

**Case No. 22-0915-EL-BGA**



**Powell Creek Solar |**  
Landscape Mitigation Plan

October 2022

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# Section I | Introduction

Powell Creek Solar is proposing an up to 150 MW solar energy facility spanning approximately 2,000 acres of land in Putnam County, Ohio. Powell Creek Solar in consultation with Environmental Design and Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR), has worked to develop this conceptual landscape mitigation plan (plan) to provide visual mitigation for specific locations around the proposed facility. This plan proposes a flexible conceptual planting module designed to prioritize the use of locally native plant materials for the purpose of complementing the existing vegetation within and adjacent to the project area. While not necessarily providing complete screening of the entire facility, the mitigation is intended to provide intermittent screening and softening of the view while contributing ecological benefits through the creation of habitat areas for local wildlife. The plan outlined in the subsequent pages includes a concept planting module plan diagram to accomplish the project goals as they relate to the visual mitigation of adjacent, non-participating parcels.

## Section II | Design Methodology

The proposed landscape mitigation is designed with the intent of softening the hard edges often introduced in the landscape by solar arrays, supporting Project infrastructure, and the associated solar panel perimeter fence. The concept planting module was developed utilizing the following strategies:

- Analysis of the existing landscape character and climatic conditions.
- Research of the regional flora native and/or common to the surrounding area.
- Preservation of the existing long-distance views and important vistas where possible.
- Preservation of the existing vegetation where possible.
- Reduction of visual contrast of the project to the greatest extent feasible.
- Utilization of a native plant palette to assimilate the facility into its surroundings as well as provide ecological benefit.

### VISUAL SCREENING

Selecting the appropriate visual barrier is dependent on the context of the surroundings. While opaque fencing may be well suited to a suburban setting, it would not be visually compatible with a rural landscape. Vegetative buffers, on the other hand, have precedent in agricultural and rural landscapes and would not appear out of place in most instances. The use of vegetation for screening mimics the existing hedgerow borders around farm fields, and also ties in visually with natural vegetation buffering provided by stream corridors and wetland areas within and surrounding the greater Project area.

### NATIVE PLANT MATERIALS

Selecting plant materials native to a specific site or region provides the opportunity for the greatest success. Native species are well suited for their site-specific climate, will require minimal maintenance over time and will have the greatest likelihood to thrive. Planting native species allows the facility to become visually integrated into its surrounding vegetation, while providing habitat, food, and shelter for other native species of insects, birds, and wildlife.

Utilizing seed mixes of various native grasses is a method to introduce a large amount of biodiversity to a site in a way that compliments the existing landscape. Creating habitat for insects, birds, butterflies and bees provides an ecological benefit to the surrounding monoculture of agricultural crops. These plantings providing cover, food, breeding and feeding grounds for a variety of species. In addition to the ecological benefits, these areas help to soften the views of solar facilities while maintaining open views and vistas. Low native grass plantings help stabilize soils and filter runoff, especially in roadside conditions. These native grasses can provide visual interest both while in bloom and when left to stand over winter.

## **Section III | Plant Material Selection & Maintenance**

Existing vegetation in and around the site consists of mainly agricultural crops. Minimal forested areas, small stream banks and a few sparse hedgerows also occur within the visual study area. These areas consist mainly of deciduous vegetation with a mixture of evergreen species. These stands of existing vegetation provide key information in the plant palette species selections process.

### PLANT MATERIAL MAINTENANCE

While the plant native material outlined in this report has been selected for its ability to blend into the existing landscape and reduce the need for prolonged maintenance, Powell Creek has developed a strategy to review the plant material health after initial installation to ensure the mitigation functions and ecological benefits outlined in this report are achieved moving forward.

For shrub plantings, Powell Creek will inspect the landscape mitigation plantings to identify plant material that do not survive, appears unhealthy and/or otherwise needs to be replaced. Powell Creek will remove and replace plantings as necessary.

Powell Creek will periodically evaluate and determine if the landscape mitigation planting is accomplishing the goals outlined in this report. If the existing vegetation accomplishes these goals, no further action will be taken. If deemed insufficient, new planting or others means of screening will be installed.

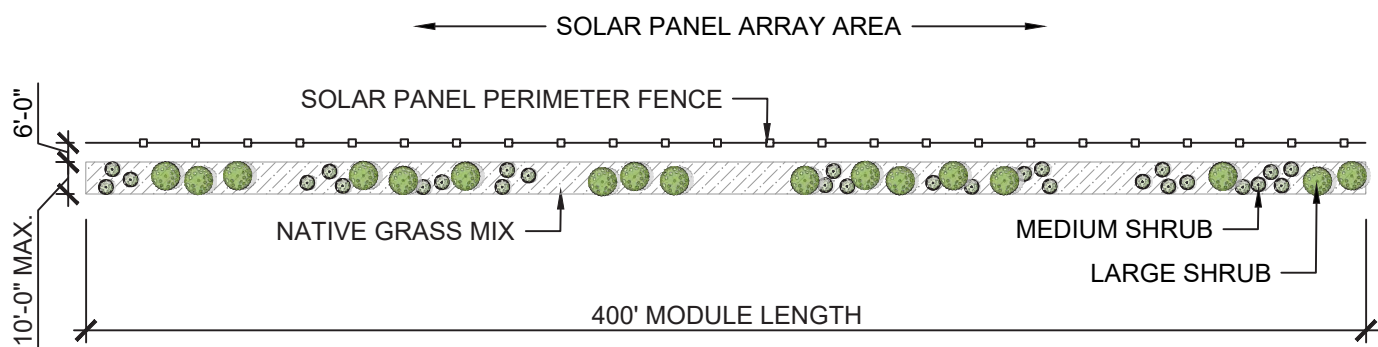
For grass plantings, Powell Creek will conduct periodic mowing to assist in the establishment and promote re-propagation, while eliminating successional growth.





# Section IV | Concept Planting Module

Consisting of native shrubs of varying scale and form, the concept planting module shown below has the ability to visually break up the horizontal line of the solar array, and to provide partial to full screening from certain vantage points. The shrub plantings allow for intermittent visual screening while maintaining long views and open sky over the top of the solar facility, preserving important vistas. The low-growing native grass mix will provide texture interest, offering additional ground plane softening. Proposed native vegetation helps visually integrate the facility into its surrounding context.

The sample plant schedules presented below offer two types of planting palettes corresponding to the site conditions contemplated for the concept planting module installation: at grade, and upon berms. These are representative of each species palette intended for this module installation.



-  **LARGE SHRUB\***
  - Cornus racemosa* / Gray Dogwood
  - Cornus amomum* / Silky Dogwood
  - Sambucas canadensis* / American Elderberry
  - Viburnum lentago* / Nannyberry

-  **MEDIUM SHRUB\***
  - Aronia melanocarpa* / Black Chokeberry
  - Cornus sericea* / Red Twig Dogwood
  - Corylus americana* / American Hazelnut
  - Physocarpus opulifolius* / Ninebark

- LARGE SHRUBS FOR BERM AREAS**
  - Cornus racemosa* / Gray Dogwood
  - Rhus copallina* / Flameleaf Sumac
  - Viburnum dentatum* / Arrowwood

- MEDIUM SHRUBS FOR BERM AREAS**
  - Cephalanthus occidentalis* / Buttonbush
  - Myrica pensylvanica* / Bayberry
  - Rhus aromatica* / Fragrant Sumac



**Concept Planting Module |** Sample Illustration (shown for plant massing purposes only at approximately 5 years after installation)



**Concept Planting Module | Sample Visualization**







## Section VI | Conclusion

Mitigation of visual impacts is an important component of the development of a solar facility. Providing a vegetative buffer helps to mitigate contrast in forms, color, and texture and to preserve the overall scenic quality and integrity of the site. The concept planting module demonstrates potential landscape mitigation that could be incorporated into the Project. In addition to the visual mitigation provided, the selection of native species further enhances ecological benefits through habitat creation, and increased biodiversity .

It is anticipated that the proposed plan will be effective in achieving the goals outlined in this plan. However, appropriate site soils, the presence of utilities, material availability, and input from the local municipality and project stakeholders may result in alterations or substitutions to the proposed planting modules. It is anticipated that the concepts included in this plan would result in successful intermittent screening and softening of views of the project..

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Summary: Amended Application Exhibit H - Landscape Mitigation Plan  
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